**Amendments to the Claims:**  This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1.      (Currently Amended) A circuit for applying a transfer function to an input signal comprising:

an input line for receiving the input signal;

a plurality of operators coupled to receive the input signal for generating respective corrected input signal values corresponding to respectively different piecewise-linear segments of the transfer function; ~~and~~

a window detector for determining a value of the input signal and generating a selection signal ~~selecting~~ to select one of the operators based on the value of the input signal; and

a multiplexer, responsive to the selection signal, for selecting one of the respective corrected input signal values corresponding to the selected operator.

~~wherein the selected one of the operators applies a correction value to correct the value of the input signal.~~

2.      (Original) The circuit of claim 1 wherein the selected operator generates the piecewise-linear segment free of a table for defining the piecewise-linear segments of the transfer function.

3. - 4. Canceled

5.      (Currently Amended) The circuit of claim [[4]]1 wherein the window detector includes a plurality of digital comparators and an encoder for selecting the one respective ~~correction value~~ operator to provide the ~~correct the~~corrected value of the input signal.

6.      (Original)      The circuit of claim 1 wherein the selected operator includes a multiplier for multiplying the value of the input signal with a value of a slope of the piecewise-linear segment generated by the selected operator.

7.      (Currently Amended) The circuit of claim 1 wherein the selected operator includes a subtractor, a multiplier and an adder;

the subtractor subtracting a lower value of the piecewise-linear segment, generated by the selected operator, from the value of the input signal to provide an offset value;

the multiplier multiplying the offset value with a value of a slope of the piecewise-linear segment to provide a product; and

the adder adding the product and a low output value of the piecewise-linear segment to provide the ~~correction~~ corrected input signal value.

8.      (Original)      The circuit of claim 1 wherein the input signal is a video signal and the transfer function is an inverse gamma transfer function.

9.      (Currently Amended) A gamma correction circuit for applying an inverse gamma transfer function to an input video signal, the circuit comprising:

an input line for receiving the input video signal;

a plurality of operators coupled to receive the input video signal for generating respective corrected input video signal values corresponding to respectively different piecewise-linear segments of the inverse gamma transfer function; ~~and~~

a window detector for determining a value of the input video signal and generating a selection signal to ~~selecting~~ select one of the operators based on the value of the input video signal; and

a multiplexer, responsive to the selection signal, for selecting one of the respective corrected input video signal values corresponding to the selected operator.

~~wherein the selected one of the operators applies a correction value to correct the value of the input video signal.~~

10.    (Original)    The circuit of claim 9 wherein the selected operator generates the piecewise-linear segment free of a table for defining the piecewise-linear segments of the inverse gamma transfer function.

11. - 12. Canceled.

13.    (Currently Amended) The circuit of claim ~~12~~9 wherein the window detector includes a plurality of digital comparators and an encoder for selecting the one respective ~~correction value~~operator to ~~correct the value of the~~provide the corrected input video signal value.

14.    (Original)    The circuit of claim 9 wherein the operator includes a multiplier for multiplying the value of the input video signal with a value of a slope of the piecewise-linear segment generated by the selected operator.

15.    (Currently Amended) The circuit of claim 9 wherein the operator includes a subtractor, a multiplier and an adder;

the subtractor subtracting a lower value of the piecewise-linear segment, generated by the selected operator, from the value of the input video signal to provide an offset value;

the multiplier multiplying the offset value with a value of a slope of the piecewise-linear segment to provide a product; and

the adder adding the product and a low output value of the piecewise-linear segment to provide the ~~correction~~corrected input video signal value.